

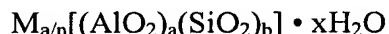
### **III. REMARKS/ARGUMENTS**

#### **A. Status of the Application**

Claims 33, 40, 43-47, 49, 53-55, 58, 61, 62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 are now pending. Claims 1-32, 34-39, 41-42, 48, 50-52, 56-57, 59-60, 63-64, 66-105, 107-109, 111-112, 122-124, 126-127 and 133 were previously cancelled. Claim 138 has been cancelled herein without prejudice or disclaimer as being drawn to a nonelected invention. Claims 33, 106 and 121 have been amended in accordance with 37 C.F.R. §1.121(c)(1). It is respectfully submitted that claims 33, 106 and 121, as amended, are supported by the specification as filed and are in condition for allowance or at least in better form for consideration on appeal. Further, claims 33, 106 and 121 as amended do not raise any new issues which require further search or substantial consideration on the part of the Examiner. For these reasons, it is requested that this amendment be entered under the provisions of 37 C.F.R. §1.116 as it places the application in condition for allowance or at least in better condition for appeal. Favorable consideration and allowance of claims 33, 40, 43-47, 49, 53-55, 58, 61, 62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 in view of the foregoing amendments and the following remarks are respectfully requested.

#### **B. Independent Claims**

Claim 33 is drawn to a wellbore spacer composition comprising a zeolite, a polymer and a carrier fluid. The zeolite is present from 60 to 70% by weight of dry materials and is represented by the formula:



where

M represents one or more cations selected from the group consisting of Na, K, Mg, Ca, Sr, Li, Ba, NH<sub>4</sub>, CH<sub>3</sub>NH<sub>3</sub>, (CH<sub>3</sub>)<sub>3</sub>NH, (CH<sub>3</sub>)<sub>4</sub>N, Ga, Ge and P;

n represents the cation valence;

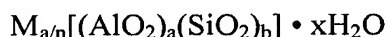
the ratio of b:a is in the range of from greater than or equal to 1 to less than or equal to 5; and

x represents number of moles of water entrained into the zeolite framework.

The polymer is present from about 1 to 3% by weight of dry materials and is selected from hydroxyethylcellulose, cellulose, carboxyethylcellulose, carboxymethylcellulose, carboxymethylhydroxyethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, methylhydroxypropylcellulose, methylcellulose, ethylcellulose, propylcellulose, ethylcarboxymethylcellulose, methylethylcellulose, hydroxypropylmethylcellulose, starch, guar gum, locust bean gum, tara, konjak, karaya gum, welan gum, xanthan gum, galactomannan gums, succinoglycan gums, scleroglucan gums, tragacanth gum, arabic gum, ghatti gum, tamarind gum, carrageenan, carboxymethyl guar, hydroxypropyl guar, carboxymethylhydroxypropyl guar, polyacrylate, polymethacrylate, polyacrylamide, maleic anhydride, methylvinyl ether copolymers, polyvinyl alcohol and polyvinylpyrrolidone.

Each of claims 40, 43-47, 49, 53-55, 58, 61, 62, 65 and 135 depends directly or indirectly from claim 33, and therefore each includes at least the foregoing elements.

Claim 106 is drawn to a wellbore spacer composition comprising a zeolite, a dispersant and a carrier fluid. The zeolite is present from 60 to 70% by weight of dry materials and is represented by the formula:



where

M represents one or more cations selected from the group consisting of Na, K, Mg, Ca, Sr, Li, Ba,  $NH_4$ ,  $CH_3NH_3$ ,  $(CH_3)_3NH$ ,  $(CH_3)_4N$ , Ga, Ge and P;

n represents the cation valence;

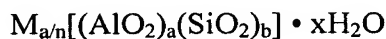
the ratio of b:a is in the range of from greater than or equal to 1 to less than or equal to 5; and

x represents the number of moles of water entrained into the zeolite framework.

The dispersant is present from about 1 to 18% by weight of dry materials and is selected from sodium naphthalene sulfonate condensed with formaldehyde, sulfonated styrene maleic anhydride copolymer, sulfonated vinyltoluene maleic anhydride copolymer, sulfonated acetone condensed with formaldehyde, lignosulfonates and interpolymers of acrylic acid, allyloxybenzene sulfonate, allyl sulfonate and non-ionic monomers.

Each of claims 110, 113-120 and 136 depends directly or indirectly from claim 106, and therefore each includes at least the foregoing elements.

Claim 121 is drawn to a wellbore spacer composition that includes a zeolite, a surfactant and a carrier fluid. The zeolite is present from 60 to 70% by weight of dry materials and is represented by the formula:



where

M represents one or more cations selected from the group consisting of Na, K, Mg, Ca, Sr, Li, Ba,  $NH_4$ ,  $CH_3NH_3$ ,  $(CH_3)_3NH$ ,  $(CH_3)_4N$ , Ga, Ge and P;

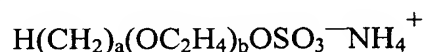
n represents the cation valence;

the ratio of b:a is in the range of from greater than or equal to 1 to less than or equal to 5; and

x represents the number of moles of water entrained into the zeolite framework.

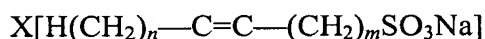
The surfactant is selected from:

(a) an ethoxylated alcohol ether sulfate of the formula:

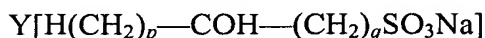


wherein a is an integer in the range of from about 6 to about 10 and b is an integer in the range of from about 3 to about 10;

(b) a sodium salt of  $\alpha$ -olefinic sulfonic acid which is a mixture of compounds of the formulas:



and



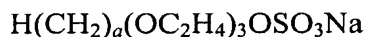
wherein:

n and m are individually integers in the range of from about 6 to about 16;

p and q are individually integers in the range of from about 7 to about 17; and

X and Y are fractions with the sum of X and Y being 1;

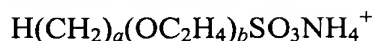
(c) a composition having the formula:



wherein:

a is an integer in the range of from about 6 to about 10;

- (d) oxyalkylated sulfonate;
- (e) an alcohol ether sulfonate of the formula:



wherein:

- a is an integer in the range of from about 6 to about 10; and
- b is an integer in the range of from about 3 to about 10;
- (f) cocoamine betaine;
- (g) an alkyl or alkene amidopropyl betaine having the formula:



wherein R is a radical selected from the group of decyl, cocoyl, lauryl, cetyl and oleyl;  
and

- (h) an alkyl or alkene amidopropyl dimethylamine oxide surfactant having the formula:



wherein R is a radical selected from the group of decyl, cocoyl, lauryl, cetyl and oleyl.

Each of claims 125, 128-132, 134 and 137 depends directly or indirectly from claim 121, and therefore each includes at least the foregoing elements.

#### **C. Election/Restrictions**

According to the Office Action mailed April 10, 2008, the withdrawal of claim 138 for prosecution on the merits has been made final. While Applicants maintain that claim 138 has been improperly withdrawn from consideration, as noted above, claim 138 has been cancelled without prejudice or disclaimer.

#### **D. Rejection of Claims under 35 U.S.C. §103(a) over Chaux '734**

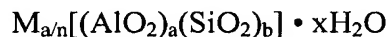
Claims 33, 40, 43-47, 49, 53-55, 58, 61-62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 4,548,734 to Chaux ("Chaux '734). Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

To sustain the present rejection of claims 33, 40, 43-47, 49, 53-55, 58, 61-62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 under 35 U.S.C. § 103(a) over Chaux '734, a prima facie case of obviousness must be established. In *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007), the Court stated that "a patent composed of several elements **is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art**. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a **reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does**. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *Id.* at 1741 (emphasis added). As the PTO recognizes in MPEP § 2142:

*...The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following reasons.

As noted above, the downhole wellbore spacer compositions of independent claims 33, 106 and 121 include from 60 to 70% by weight of dry materials of a zeolite represented by the formula:



where

M represents one or more cations selected from the group consisting of Na, K, Mg, Ca, Sr, Li, Ba, NH<sub>4</sub>, CH<sub>3</sub>NH<sub>3</sub>, (CH<sub>3</sub>)<sub>3</sub>NH, (CH<sub>3</sub>)<sub>4</sub>N, Ga, Ge and P;

n represents the cation valence;

the ratio of b:a is in the range of from greater than or equal to 1 to less than or equal to 5; and

x represents the number of moles of water entrained into the zeolite framework;

In addition to the zeolite, the wellbore spacer compositions of independent claims 33 and 106 further include either a polymer or a dispersant present from about 1 to 3% or from about 1 to 18%, respectively, by weight of dry materials. Also, in the case of the downhole wellbore spacer composition of independent claim 121, the downhole wellbore spacer composition further includes a surfactant.

Chaux '734 discloses a composition that includes a water soluble gum or polymer, a water donor material and optionally an anionic or nonionic surfactant (column 8, lines 37-44). According to Chaux '734, the components of the composition that are mixed in a dry state include the water donor material, which can be a zeolite, the gum and optionally the anionic or nonionic surfactant (column 11, lines 56-68). The water donor material is added in the form of a dry powder, even if it is impregnated with water (column 12, lines 1-2). The surfactant may be added in the form of a solid or a liquid (column 12, lines 8-14).

Chaux '734 discloses at column 11, lines 37-43 that the compositions can include:

30 to 70% by weight of water soluble gum;

7 to 40% by weight of water donor;

0 to 10% by weight of surfactant; and

15 to 37% by weight of water.

Therefore, the composition according to Chaux '734 having the highest possible percentage of the water donor, which may be a zeolite, is one that includes the maximum amount of the water donor, the minimum amount of the water soluble gum, no surfactant and as little water as possible, within the constraints for each component noted above. Such a composition would include 30% by weight of the water soluble gum, 40% by weight of the water donor, 0% by weight of the surfactant and 30% by weight of water. In such a composition, the components of the composition that are mixed in a dry state which thus constitute the dry ingredients are the water soluble gum and the water donor which account for 70% by weight of the composition. Consequently, the composition according to Chaux '734 having the highest possible percentage of the water donor includes 57% by weight of the dry ingredients (40/70).

Therefore, contrary to claims 33, 106 and 121, there is no disclosure, motivation or suggestion in Chaux '734 for a downhole wellbore spacer composition that includes a zeolite present from 60 to 70% by weight of dry materials.

The Office Action mailed April 10, 2008, states that:

“Chaux discloses in, col. 11, lines 37-42, a formulation wherein the zeolite component of the composition can be present in a range of 7 to 40% of the composition; surfactant in a range of 0 to 10% (optional); and water in a range of 15 to 37%. The zeolite in this formulation can thereby be present in, e.g., 40%, the surfactant 1% and water 37%. If so, it is present in an amount of 40/(100-38) of the dry materials, which is about 65%.”

It is respectfully submitted that this interpretation of Chaux ‘734 is incorrect.

Specifically, and contrary to what is alleged in the Office Action, the selected portion of Chaux ‘734 discloses that:

Examples of the subject compositions comprised of a water soluble gum are as follows:

- (1) 30 to 70% by weight water soluble gum;
- (2) 7 to 40% by weight of water donor;
- (3) 0 to 10% by weight of an anionic and/or a nonionic surfactant; and
- (4) 15 to 37% by weight of water.

Contrary to what is stated in the Office Action, Chaux ‘734 does not disclose or suggest a composition that does not include a water soluble gum. In fact, the entire disclosure of Chaux ‘734 is directed to compositions that include water soluble gums.

In addition, the composition alleged by the Office Action to be disclosed by Chaux ‘734 includes 40% by weight of zeolite, 1% by weight surfactant and 37% by weight of water. Since compositions according to Chaux ‘734 must include a water soluble gum, the water soluble gum would make up the remaining 22% by weight of the composition. However, this amount of water soluble gum is outside the range disclosed by Chaux ‘734.

Thus, contrary to the Office Action, the composition disclosed by Chaux ‘734 having the highest percentage by weight of the water donor in terms of the dry ingredients is 57% which is outside the range of the claimed compositions. Therefore, it is respectfully submitted that Chaux ‘734 does not disclose or suggest the claimed compositions.

The Office Action states that:

“[I]t is uncertain from the specification as to what the definition of “dry mix” actually encompasses. In paragraph [0042] on page 8 of the present specification, Applicant discloses that ‘in one embodiment, the zeolite-containing well bore treating fluid may be prepared as a dry mix including some or all of the above-identified components, except for the carrier fluid.’ Consequently, because the

term 'dry mix' can be interpreted as including the zeolite component and one or more of the disclosed additives, it is uncertain why Chaux's formulation would not encompassed by the range limitation for the weight percentage of zeolite in the instant independent claims."

Applicants take this opportunity to note that while claims 33, 106 and 121 do not include the term "dry mix" it is clear what is intended by this term. In this regard, reference is made to paragraph [0012] of the present application which states that:

Preferably, the wellbore treating fluid is prepared as a dry mix including the zeolite and optionally the viscosifier, organic polymer and dispersants. Prior to use as a wellbore treating fluid, varying ratios of dry mix, weighting material, carrier fluid and optionally surfactants are combined to yield the desired wellbore treating fluid density and viscosity.

Clearly, the term "dry mix" as used in the present specification, is intended to refer to the dry ingredients such as the zeolite and optionally a viscosifier, an organic polymer and a dispersant. Paragraph [0015] of the present application is also clear that the wellbore treating fluid dry mix includes from 60 to 70% by weight of zeolites. As noted above, Chaux '734 does not disclose or suggest such a composition.

Moreover, contrary to claim 106 there is no disclosure, motivation or suggestion in Chaux '734 for a downhole wellbore spacer composition that includes a zeolite present from 60 to 70% by weight of dry materials and a dispersant present from about 1 to 18% by weight of dry materials.

Further, there is no reason, suggestion or motivation for the modification of Chaux '734 so as to provide a downhole wellbore spacer composition as recited in any of claims 33, 106 or 121. Neither Chaux '734 nor the current Office Action describes how a person of ordinary skill in the art could be motivated to modify the disclosure of Chaux '734 to provide a downhole wellbore spacer composition as recited in any of claims 33, 106 or 121. Also, there could be no reasonable expectation of success of providing such a downhole wellbore spacer composition from the disclosure of Chaux '734 for at least the reason that there is no suggestion or motivation for modification of the disclosure of Chaux '734. Moreover, a reasonable expectation of success for modifying the formulation as described by Chaux '734 to provide a downhole wellbore spacer composition as recited in any of claims 33, 106 or 121 has not been provided.



In view of the foregoing, Applicants respectfully submit that Chaux '734 fails to disclose each and every element of claims 33, 106 and 121. Therefore, it is respectfully submitted that the Examiner has not met the initial burden of factually supporting the alleged prima facie case of obviousness of independent claims 33, 106 and 121 under 35 U.S.C. §103(a) over Chaux '734. It is further respectfully submitted that the Examiner has similarly not met the initial burden of factually supporting the alleged prima facie case of obviousness of dependent claims 40, 43-47, 49, 53-55, 58, 61-62, 65, 110, 113-120, 125, 128-132 and 134-137 under 35 U.S.C. §103(a) over Chaux '734, for at least the same reasons that apply to claims 33, 106 and 121. For the foregoing reasons, Applicants request that the rejection of claims 33, 40, 43-47, 49, 53-55, 58, 61-62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 under 35 U.S.C. §103(a) over Chaux '734 be withdrawn.

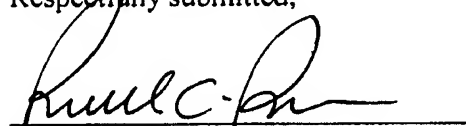
**E. Conclusion**

Claims 33, 40, 43-47, 49, 53-55, 58, 61, 62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 are now pending. In view of the foregoing remarks, allowance of claims 33, 40, 43-47, 49, 53-55, 58, 61, 62, 65, 106, 110, 113-121, 125, 128-132 and 134-137 is respectfully requested. The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Date: 10 June 2008

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